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Article title: Joining-up thinking: Loss in childbearing from interdisciplinary perspectives

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Joining-up thinking: Loss in childbearing from interdisciplinary perspectives

‘While all disciplines ask distinctive and worthwhile abstract (i.e. one-sided) questions, understanding concrete (i.e. many-sided) situations requires an inter-disciplinary, or better, postdisciplinary approach, which follows arguments and processes wherever they lead, instead of stopping at conventional disciplinary boundaries, subordinating intellectual exploration to parochial institutional demands.’ (Sayer, 1999, p.1-2)

This Special Issue seeks to increase insight into and awareness about loss in childbearing in resource-poor countries. Papers address three kinds of loss: of the unborn child (stillbirths, spontaneous and induced abortions, and early neonatal deaths); of the mother (maternal mortality), and of childbearing potential (infertility). Attention to maternal and neonatal deaths has increased in the last decade, mainly due to the launch of the Millennium Development Goals (MDGs) and initiatives such as Saving Newborn Lives (Save the Children) and the Partnership for Maternal, Neonatal and Child Health (WHO). Nevertheless, loss in childbearing in resource-poor settings has been relatively neglected by researchers, policymakers and practitioners compared with other sexual and reproductive health issues such as HIV and family planning. For instance, our rapid Web of Knowledge (WoK)-database search in July 2010, limited to developing countries or resource-poor settings, returned the following number of publications (in brackets), for the following key-words: miscarriage OR spontaneous abortion (451); stillbirths (487); infertility (795); induced OR unsafe abortion (1871); maternal mortality OR maternal death OR maternal health (8146). On the other hand, we found 11,370 publications on HIV (first publication in WoK: 1982) and 12,550 publications on family planning (first publication in WoK: 1953).

The relevance of loss in childbearing cuts across the health and other MDGs, including those on gender (MDG 3), child health (MDG 4), maternal health (MDG 5a) and reproductive health (MDG 5b). At the influential International Conference on Development and Population (ICPD) in 1994, reproductive health was defined as 'a state of complete **physical, mental and social well-being**, and **not merely the absence of disease**, in all matters relating to the reproductive system (...)' (United Nations, 1994, paragraph 7.2.). The papers in this Special Issue demonstrate that physical, mental and social well-being are all compromised when loss in childbearing occurs. According to the ICPD's Programme of Action, reproductive health 'implies that people (...) have the **capability to reproduce** and the **freedom to decide** if, when and how often to do so'. It refers to '**the rights of men and women to be informed and to have access to safe, effective, affordable and acceptable** methods of family planning of their choice, as well as other **methods for regulation of fertility** which are not against the law, and the **right of access to appropriate health-care services that will enable women to go safely through pregnancy and childbirth** and provide couples with the best chance of having a healthy infant' [United Nation, 1994, paragraph 7.2].

The ICPD's multi-dimensional, holistic conceptualisation of reproductive health and its Programme of Action have been widely incorporated in governmental and non-governmental policy and practice. Unfortunately, as the papers in this special issue demonstrate, reproductive health care is all too often still *not* sufficiently safe, effective, affordable and acceptable, or just not available at all, whether the care concerns maternal health (papers by Jeffery & Jeffery; Brunson; D'Ambruoso, Byass, Qomariyah & Ouédraogo; Pitchforth et al.), infertility treatment (Hough; Nahar), or (post-) abortion services (Koster; van der Sijpt; Haws, Mashasi, Mrisho, Armstrong Schellenberg, Darmstadt & Winch; Hough). In addition, the papers demonstrate very clearly that the physical, mental and social well-being of women and their families is consequently often compromised, in a multitude of ways. In recognition of the breadth and cross-cutting spirit of ICPD and the MDGs, this

Special Issue brings together multi-disciplinary, critical and contextualised analyses which provide insight into *why* reproductive care is often still not effective, affordable or acceptable. Furthermore, the papers describe how broad and cross-sectoral perspectives can improve understanding of and therefore action for change.

In this editorial, we set the scene by providing epidemiological data on the prevalence of loss in childbearing. We underscore the need for an interdisciplinary, contextualised approach by highlighting the multi-dimensional nature of loss. We identify some of the main insights that the collection offers to those seeking to improve people's reproductive health. We draw attention throughout to loss in childbearing as a physical, psychological, social, economic and public health problem, intertwined with social, political and economic inequities that are affronts to social justice and human rights.

The burden of loss in childbearing

Loss in childbearing is common in resource poor-countries (see table 1). *Maternal mortality* in developing countries remains worryingly high (Hill et al., 2010; Hogan et al., 2010), despite a reported global decline of the maternal mortality ratio (MMR) from 422 (358–505) in 1980 to 251 (221–289¹) per 100,000 live births in 2008 (Hogan et al., 2010). Uncertainty around these modelled estimates, however, is considerable and they suggest only a slow rate of decline, still requiring considerable acceleration if the MDG target of a reduction by 75% between 1990 and 2015 is to be attained. In addition, the global reduction masks substantial regional variation. For instance, some countries in Asia have experienced a substantial fall in MMR, but the reduction in maternal deaths in southern and western sub-Saharan Africa is negligible and rates have even increased in some African countries, possibly due to conditions such as HIV (Hill et al., 2010; Hogan et al., 2010).

Moreover, women who survive childbearing may be 'near-misses' who experience severe and acute maternal morbidities, such as severe haemorrhage, eclampsia or sepsis. It

¹ Uncertainty intervals in brackets

is estimated that for every maternal death, 30 women suffer some form of severe or disabling morbidity (Prual, Bouvier-Colle, de Bernis, & Breart, 2000). Maternal morbidities often occur alongside death of the baby (stillbirths, neonatal deaths), or lead to future loss through spontaneous abortions or infertility. (Collin, Marshall, & Filippi, 2006; Souza et al., 2010)

Stillbirths are largely invisible, being widely underreported in developing countries. It is estimated that only 2% of the 3 million annual stillbirths are reported in routine registration systems (Lawn et al., 2010). The rate of 26 per 1000 births (WHO, 2007a) is more than 4 times higher than western stillbirth rates. The high rates are thought to result from poor maternal health, inadequate care during pregnancy and pre- and post-delivery, and lack of newborn care (WHO, 2007a). A recent WHO publication argues that in many resource-poor societies, 'neonatal deaths and stillbirths are not perceived as a problem, largely because they are very common' (2007a, p.2). Papers in this issue (van der Sijpt; Haws et al.; Hough) demonstrate, however, that stillbirths and neonatal deaths are real problems for people, although capturing people's perceptions and ways of expressing sensitive and culturally nuanced matters concerning neonatal deaths, stillbirths and miscarriages is difficult. We cannot continue to ignore the complexity of the problems involved.

Induced abortion rates in resource-poor and -rich settings are very similar, but, importantly, *unsafe* abortions rates differ considerably. These are abortions performed by people lacking the necessary skills or in an environment that does not conform to minimum medical standards, or both (WHO, 2007b). About 97% of all unsafe abortions are performed in resource-poor settings (Sedgh, Henshaw, Singh, Ahman, & Shah, 2007). They often have dire health consequences, including infertility, and cause between 4% to 12% of maternal deaths in developing countries (Khan, Wojdyla, Say, Gulmezoglu, & van Look, 2006).

Infertility, too, is common in resource-poor settings, most often caused by infections, resulting from unhygienic deliveries, unsafe abortions and especially sexually transmitted diseases. Infertility affects an estimated 60-80 million people, again, mostly in resource-poor

countries (Sharma, Mittal, & Aggarwal, 2009). In sub-Saharan Africa, the prevalence of (primary and secondary) lifetime infertility ranges from 11.8%-19.6%, in Asia from 5% to 15.1% (Boivin, Bunting, Collins, & Nygren, 2007). There are problems, though, with how demographic and epidemiological studies define infertility: infertile couples are those who have not had a live birth for a certain number of years, normally 2, 5 or 7 years, although married. In non-western settings, however, people often see themselves as having a fertility problem long before the required number of years have passed, and those who are not married can experience fertility problems too (Gerrits, Boonmongkon, Feresu, & Halperin, 1999). In resource-poor settings plagued by so many life-threatening health problems, policy-makers and practitioners may consider infertility relatively insignificant. Yet, in these settings, infertility has serious social, psychological and economic consequences (Ombelet, Cooke, Dyer, Serour, & Devroey, 2008). In the absence of a social security system, older people are often dependent on their children's economic and practical support (Ombelet et al., 2008). In several African countries, up to one third of gynaecological and family planning consultations concern infertility (Rowe, 1999). This demonstrates its local importance.

Table 1. Loss in childbearing: Regional prevalences²

	Maternal Mortality Ratio (number of maternal deaths per 100,000 live births)	Lifetime infertility (% of married women between 20-44 ever experienced more than 12 months' delay in conception or carrying a child to term)³	Abortion Rate (per 1,000 women aged 15–44)⁴	Unsafe abortion Rate (per 1,000 women aged 15–44)⁴	Stillbirth Rate (per 1,000 births)⁵
Developed countries	9 ⁶	16.5% ⁸ (median)	26	2	6

² Rates are provided for Asia and sub-Saharan Africa only because these are the geographical areas on which the papers in this special issue focus

³ Different studies use a different time-scale to measure infertility, varying between 12 to 60 months.

⁴ (Sedgh et al., 2007)

⁵ {WHO, 2007 16 /id}

⁶ (Hill et al., 2010)

	(8-17) ⁷	14.8% (median)			
Developing countries⁹	450 ⁶ (242-730)		29	16	26
Sub-Saharan Africa	905 ⁶ (453-1480)	11.8%-19.6%	29	29	
East Africa	508 ¹⁰ (430-610)		39	39	27
West Africa	629 ¹⁰ (508-787)		27	28	41
South Asia					
South & South Central Asia	323 ¹⁰ (232-444)	5%- 15.1%	27	18	34
South Eastern Asia	152 (112-212) ¹⁰		39	23	19

The importance of an interdisciplinary approach to loss in childbearing

The high prevalence of loss in childbearing in resource-poor settings underscores that loss is the product of the interaction between biological processes and events, *and* the specific social, political, and economic context, including the local health system. Therefore, loss in childbearing must be studied from multi- or inter-disciplinary perspectives which draw both on medical and social sciences in order to be properly understood. While this holds true for all health problems (e.g. malaria, TB), there are several reasons why this is particularly pertinent to loss in childbearing (cf. Pittrof & Campbell, 2000).

First, as the papers in this Special Issue demonstrate, there are profound social meanings attached to bearing children or failing to do so (see section *Contextualised understanding of loss in childbearing*). In resource-poor settings, there are strong normative expectations that once married, one ought to bear children. Those who fail to meet these expectations, whether because of infertility, stillbirths, spontaneous or induced abortion, are vulnerable to negative moral judgements and maltreatment by partners, relatives, community

⁸ (Boivin et al., 2007)

⁷ In brackets: uncertainty intervals.

¹⁰ Hogan et al. (2010)

members and even practitioners. The social meanings of bearing children affect the experience of loss, as well as lay people's and professionals' management of pregnancy and related complications. In order to capture the social and context-specific meanings of loss and related behaviours, we need social science approaches and the use of qualitative in addition to quantitative methodologies.

Second, physical loss often leads to profound financial loss. For example, although maternal mortality was long seen as a medical problem, a maternal death can result in a cascade of other losses which affect families and their livelihoods. We know that loss of income and household debt can result from loss of the earning potential of a woman and also from the costs of accessing care (Storeng et al., 2008), with long term, down-stream effects on the integrity and survival of the family as a whole (Filippi et al., 2006). Hence, the loss experience and the available means of managing or preventing loss depend on people's social and economic positions. As Colen (1986) and Rapp and Ginsburg (1995) have argued, reproduction is stratified. The possibility, experience and valuation of reproduction differs for people with unequal access to material and social resources, due to hierarchies in class, gender, ethnicity, and place in the global economy. Hence, in order to prevent and mitigate suffering caused by loss in childbearing, we need to obtain a holistic understanding of loss and how it affects individuals' and families' physical, mental, social and financial well-being. Acknowledging this, the first author (BdK), together with the other guest editors (JH and PJ) organized an interdisciplinary workshop on loss in childbearing in South Asia and sub-Saharan Africa at the University of Edinburgh in September 2008 (funded by the British Academy, Edinburgh University Development Trust Research Fund, and the Foundation for the Sociology of Health and Illness). This Special Issue comprises 10 of the workshop papers. They are grounded in the disciplines of anthropology, sociology, and public health, and based on qualitative or mixed-method studies conducted in 9 different Asian and African countries: Bangladesh, India, Indonesia, Nepal, Burkina Faso, Cameroon, Ethiopia, Nigeria and Tanzania.

As a collection, this Special Issue increases the breadth and depth of our insights into loss in childbearing. Its multi-disciplinary character allows for the unearthing of a wider range of features and concerns, due to the use of social science perspectives and qualitative and mixed-methods in a domain of study traditionally dominated by quantitative public health research. Moreover, by bringing together different types of loss which are normally studied and treated separately, we can identify cross-cutting themes and insights of value for anyone wanting to understand or improve people's reproductive health. We will highlight these in the next section.

Contextualised understanding of loss in childbearing

This Special Issue sheds light on social meanings and expectations concerning reproduction (3.1), the social character of the management of loss in childbearing (3.2), and the combined impact of social and economic vulnerability (3.3). These aspects make loss in childbearing particularly problematic in resource-poor settings. They are also main reasons why accessing safe and affordable reproductive health care is so often impossible / problematic for people in resource-poor settings.

Failure to reproduce: A breach of social expectations

The papers demonstrate that there are profound social meanings attached to bearing children (cf. Pittrof & Campbell, 2000) and of failing to do so, whether because of failure to conceive, stillbirths, spontaneous or induced abortions or early neonatal deaths. In resource-poor settings, there are strong normative expectations that married couples ought to bear children (Inhorn & Van Balen, 2002; see also de Kok, 2009), and parenthood, and especially motherhood, is a condition for adulthood (Hough, Nahar). Women who fail to give birth to a live child, but especially those who fail to conceive, can become subject to various forms of stigmatisation and social exclusion by relatives and community members (Haws et al.;

Hough; Nahar). Children facilitate social well-being because they are a source of identity, status, power, and economic survival; they can provide essential support for women in old age and cement a husband's emotional and economic support (Nahar; Hough; van der Sijpt; Storeng, Murray, Akoum, Ouattara & Filippi). When a marriage remains childless, a man may have affairs, start a polygamous marriage or separate from his wife (Koster; Nahar; Storeng et al.). Sometimes a man abandons his wife if she did not give birth to a live baby, even if she barely survived the delivery (Storeng et al.). One reason for this is the financial consequences of near-miss events which often result in tensions between the woman, spouse, and relatives, *especially* if the complications led to loss of the baby (Storeng et al.). Hence, the loss experience is fundamentally social. Failure to bear children breaches social expectations, and seriously threatens people's emotional, social and economic well-being. In fact, Koster suggests that some may consider a childless life to be worse than death.

Prevention and management of loss as a social process

Preventing and managing loss in childbearing are fundamentally social processes as well, shaped by social meanings, expectations and relationships. When failing to conceive, women tend to seek help from multiple biomedical and indigenous or religious sources. This intense health-seeking behaviour appears related to social pressures and normative expectations that one ought to bear (live) children (Hough, Nahar; see also de Kok & Widdicombe, 2008). More frequently, however, social expectations and interpretations mean that women do *not* make use of care meant to prevent loss or mitigate its consequences. For instance, adhering to health practitioners' advice to rest or to delay pregnancy by using family planning after a near-miss event is difficult for women due to social pressures to conceive again soon, regardless of the potential health impact (Storeng et al.). In general, childbearing is seen as so important, and infertility as so disastrous, that women may refuse to use family planning out of fear that this reduces their reproductive potential. Ironically, this may lead to unwanted pregnancies and abortions that increase the risk of infertility (Koster).

Because abortions face wide-spread condemnation, women try to keep them hidden by self-aborting, using backstreet abortionists or not seeking help for complications (Koster). This may well have deadly consequences, with unsafe abortions killing over 68,000 women every year (Grimes et al., 2006). Women may want to keep a spontaneous abortion or stillbirth and related complications a secret as well, by avoiding care, support, and even public burials or displays of grief (Haws et al.). One reason for secrecy is that women fear accusations that they had an induced abortion (Haws et al.; van der Sijpt). In addition, a miscarried or stillborn baby is sometimes thought to be the result of witchcraft or evil spirits, and public burials and displays of grief may evoke future malice that could lead to infertility (Haws et al.).

Furthermore, Brunson found in her study in Nepal that women often give birth at home, sometimes alone, even when health services are financially and practically within reach. She relates this to local interpretations of birth as a natural event, which does not require medical intervention. Thus, there appear to be social expectations that labouring women do not seek help at a hospital. Jeffery and Jeffery encountered this in rural north India as well, where people risk facing community members' condemnation, whether for spending money on medical care unnecessarily or for being too careless when care seeking is delayed too much. People are thus 'poised on a moral knife edge' (Jeffery & Jeffery) and social expectations and moral judgements will inform the way complications are managed. Yet, these ways of coping put women's lives at risk.

Prevention and management of loss are social processes because they are informed by social meanings and expectations, but also because it is often not the woman herself who decides to seek care. In their quest for conception, women are often pushed and accompanied by relatives (Hough; Koster; Nahar, see also Inhorn, 1994). Pressures from one's partner, relatives or family-in-law, may either lead women to abort a pregnancy (Haws et al.; Koster) or prevent them from doing so (van der Sijpt). Often the husbands or relatives decide whether use is made of obstetric services (Brunson, D'Ambruoso, Jeffery & Jeffery).

Hence, in order to understand health-seeking behaviour, we need to look at individuals-in-context and the variable, culturally-contingent 'social body' rather than the universal physical body (van der Sijpt; Scheper-Hughes & Lock, 1987). This is an important insight for an area in which global interventions and policies have traditionally been formulated based on medical and public health research and insights. This had led to a 'techomedical' (Davis-Floyd & Sargent, 1997) approach which seeks to control reproduction and birth through biomedical interventions. This approach is exemplified by the current focus on skilled birth attendants and emergency obstetric care (EmOC). As Brunson points out, this is at odds with a common lay perspective that birth is a natural event which does not require planned intervention. In addition, the drive to control birth raises questions about who can and should do so. Women often lack the knowledge, and the social and physical power to decide where and when to seek care. Relatives and spouses tend to have the power but often not the knowledge about this 'women's domain' (Brunson).

Furthermore, the awareness that management is a social process and that decisions are made by social bodies questions the concept of 'informed choice' (van der Sijpt), promoted in the wake of the ICPD and the development of human rights approaches to sexual and reproductive health. Although thought to be crucial to an ethical approach to promoting healthy behaviours, 'informed choice' may be based on a false (western) ideal of an autonomous individual (van der Sijpt). Women, and even couples, are not isolated decision-makers who make choices solely or even mainly based on health risks. Rather, their decisions are socially constructed and influenced by other social actors who have their own stakes in reproductive decisions and outcomes (van der Sijpt).

Stratified reproduction: Social and economic vulnerability

The papers highlight the relevance of the concept of stratified reproduction (Colen, 1986; Ginsburg & Rapp, 1995) for the various forms of loss in childbearing. They show that the risks and consequences of stillbirths, spontaneous and induced abortions, neonatal and

maternal deaths, as well as the options for preventing and mitigating loss, depend on people's social, political and economic power to access (financial, practical, human) resources. Socio-economic and power inequalities are intertwined with gender inequalities. Women are often socially and economically more vulnerable than men, and securing their relatives' and spouses' support, through bearing children, is crucial. Thus, economic vulnerability heightens women's social vulnerability and dependency on (for instance) their husbands, and vice versa (cf. Storeng et al). Both economic and social vulnerability are crucial for the experience and management of childbearing and loss in childbearing.

The social and economic threats which loss poses are of course particularly pertinent to women from poor socio-economic backgrounds. Loss can leave them economically and socially even more vulnerable and marginalised (Storeng et al.). Many young, single women have a low socio-economic status, and their pregnancies will often be unwanted. Yet, if seeking to terminate a pregnancy, these young, single women face particular social restrictions regarding abortion and post-abortion services and the professional and social support they can obtain. While married women can more easily pretend that they suffer complications due to a spontaneous miscarriage (Koster), there is a greater need for single women to hide an abortion and any complications in order to avoid social condemnation. This impedes access to care, with potentially deadly consequences.

Hence, the risks and consequences of loss in childbearing, but also the available coping strategies, differ according to people's socio-economic position. Nahar demonstrates this with respect to infertility; in Bangladesh, only wealthy, urban women have access to assisted reproductive technologies, although their 'quest for conception' (Inhorn, 1994) tends to be as lengthy and unfruitful as poor rural women's. As other authors have shown (Gwatkin, 2005), there are inequities in access to quality maternal care as well, with access being restricted for women who are poor, live in rural areas (Brunson; Jeffery & Jeffery), or belong to minorities such as Muslims in India (Jeffery & Jeffery).

Worryingly, several papers report issues concerning the quality of care offered to those contending with loss or the risk of loss, whether the care concerns infertility treatment, abortion services or maternal health care (d'Ambruoso et al.; Jeffery & Jeffery; Koster; Nahar; Pitchforth, Lilford, Kebede, Asres, Stanford & Frost). Socio-economic positions and inequalities can be seen to matter once more, since those belonging to poorer and minority segments of the population appear especially likely to encounter substandard care (Jeffery & Jeffery). Staff perceptions that clients are unable to pay (D'Ambruoso et al.) or judgements concerning when and for whom childbearing is proper (Brunson; Jeffery & Jeffery; Koster) can lead to delays in the provision of care and to verbal and physical maltreatment of clients (Jeffery & Jeffery; Brunson). Professionals' lack of accountability, informed by power differentials between practitioners and clients, obstructs poor clients' critiques of treatment (D'Ambruoso et al.; Jeffery & Jeffery) and may perpetuate substandard care. At the same time, inter-professional relationships and power struggles (e.g. between midwives and paediatricians), may affect the quality of care (Pitchforth et al.). We also need to acknowledge the stark lack of physical, human and financial capital in resource-poor settings, and how health systems often disempower front-line staff too (Jeffery & Jeffery; Pitchforth et al.).

Nevertheless, inequities and social and economic vulnerability are highlighted once more. Rather than living in a world where we have 'reproductive health for all' (UN, 2006), we live in a world where reproduction, reproductive health and reproductive health care are all fundamentally stratified.

Implications for policy, practice and research

All the papers in this Special Issue provide specific recommendations for reproductive health policy and practice. We will not reiterate these here, but draw out some recommendations based on a synthesis of the individual papers' analyses.

Multi-sectoral, interdisciplinary efforts

The collection of papers highlights an exceptionally wide range of consequences of loss in childbearing, with loss disrupting bodily integrity, economic well-being, and social identity and relationships. In addition, the papers show that some people are more vulnerable to loss in childbearing than others. Attention to social and economic vulnerability draws attention to how social, economic and political factors such as poverty, gender, power differentials and social relations (between relatives and spouses, between professionals and patients, and amongst professionals) influence the experience of loss but also the use and provision of services.

Hence, to give greater depth to policy formulation and to make interventions more effective, the whole spectrum of evidence generated from medical, social and economic perspectives is needed. For instance, maternal health policy should not just be about averting loss of maternal life but also about other (social, economic) losses. A better integration between social and health policies is required (Storeng et al.). This would increase our ability to address the range of consequences of loss in childbearing and the inequities in terms of risks of experiencing loss and its consequences. Such a recommendation is not new (see e.g. (DFID, 2004; Paruzzolo, Mehra, Kes, & Ashbaug, 2010), but nor is it easy to put into practice, particularly as researchers like to communicate evidence in the form (or discipline) with which they are familiar, while policy makers and practitioners may not have the time or access to multiple data sources.

Contextualisation rather than 'one size fits all' approaches

The papers problematize global health and development initiatives based on western agendas and medical science insights into the 'universal' or biological body, rather than the culturally variable 'social body'. For policies and interventions to be effective, they need to be tailored to local interpretations of loss, risks, and the profoundly stratified social, economic and moral worlds in which people live. That is to say, individuals experience loss in contexts

in which they are surrounded by, and have relationships with, various social actors who have their own stakes in and judgements about their reproduction. In that sense, how loss is experienced and managed depends on local social and moral worlds.

Drawing on Pigg (2005), Hough notes that the HIV epidemic led to a medicalisation of sexual and reproductive health, while socialisation and contextualisation are required with more attention paid to economic, political, socio-cultural, marriage and kinships contexts, and 'morally saturated interpersonal relationships' (Pigg, 2005, p.50). Such attention to context should involve identification of local rationales which inform decisions concerning childbearing and loss in childbearing. For instance, whilst the focus on skilled attendance and EmOC may appear best 'evidence-based' practice, numerous factors, many related to relationships and power dynamics, can counteract people's use of maternal care, making delays in help-seeking understandable and reasonable (Brunson; Jeffery & Jeffery). This Special Issue throws into sharp relief that sexual and reproductive health policies and interventions are not neutral 'things' introduced in a social and moral vacuum; how they work and are taken up (or not) depends fundamentally on the situations into which they are introduced, and how they are understood (Brunson; Hough; Jeffery & Jeffery).

The papers demonstrate tensions between local and public health perspectives and agendas. Not bearing children is clearly highly problematic for women and their families. Yet, infertile women and those experiencing involuntary loss are still largely ignored by governments and NGOs, who tend to equate women's health with maternal and child health, and whose agendas still often prioritise curtailing fertility and HIV (Hough). There have been some changes recently, but, the broad, holistic ICPD agenda has not yet been sufficiently taken up. In fact, the ICPD and subsequent sexual and reproductive health policy documents that focus on informed choice may have led to a neglect of those who suffer from *involuntary* loss (van der Sijpt). At the same time, Haws et al.'s analysis shows that women themselves may want to hide their pregnancy loss, and grieve in silence and isolation. In order to enable them to make use of services and support, their concerns need to be addressed.

In general, if we want women to use reproductive care, we need to find ways to tailor care to specific social and contextual aspects because decisions to seek care will be based on a range of social and economic as well as health considerations. Moreover, international public health initiatives should be tailored to local reproductive goals and concerns, such as preserving fertility or overcoming loss. This will then allow pursuit of the international health agenda of family planning and HIV reduction as well (Hough).

Contextualising programmes and interventions should improve the quality of care in terms of both clinical and interpersonal aspects. Interestingly, in Pitchforth et al.'s study, staff remarked that communication was not a matter of life and death and thus not a major priority. Yet, it can be expected to improve the experienced quality of care, as well as users' trust in medical institutions and practitioners. Trust may well be compromised, as was starkly demonstrated by Jeffery and Jeffery's finding that some villagers attributed a maternal death to a medical practitioner's lethal injection: in India, mistrust may well be based in part on family planning atrocities from the past. Hence, historical context matters as well.

Sexual and reproductive health programmes can be contextualised in several ways. First, policymakers and practitioners will have to think 'outside the box' and go beyond addressing medical and technical aspects of care. Second, this requires that social scientists make their research into local interpretations and concerns available and accessible to policymakers and practitioners. Third, contextualising sexual and reproductive health policies and programmes can be achieved through community participation (D'Ambruso et al.), in needs assessments and programme evaluation, and fourth, by acknowledging local categories concerning loss (cf. D'Ambruso et al.; Haws et al.). This can also facilitate doctor-patient communication (Kleinman, 1978; van der Sijpt). Fifth, Pitchforth et al.'s paper reminds us that acknowledging context implies treating health systems as core social institutions that reflect societal norms and values and comprise sets of social relations among professionals, between professionals and communities, and within

communities. We need to examine and address the dynamics of these relationships and how they affect the quality and appropriateness of care (Freedman et al., 2007).

Methodological implications

The papers also contribute to *methodological developments* in the area of loss in childbearing and reproductive health in general. Traditionally, reproductive health policy and practice has been informed by medical and public health research more than social science research. The workshop and the resultant Special Issue have shed light on the added value of inter- or multidisciplinary research in this area.

First, social science concepts (e.g. social body, stratified reproduction) provide useful lenses with which to bring new phenomena within the analytical gaze and allow for a wider conceptualisation of multiple forms of loss, embedded in social moral worlds.

Second, simultaneously drawing on medical and social sciences also means in practice that more use is made of mixed methods that bring together the richness of insights available both from qualitative and quantitative approaches. Quantitative data gathered through surveys provide important insights into trends and patterns, for instance in terms of who tends to experience loss, when and where. Qualitative social science methodologies, however, are important additions to the structured observations of medical practice, verbal autopsies, or surveys in general. Because of their open, bottom-up character, qualitative methodologies can provide insight into the (in)appropriateness of certain biomedical categories and the distinctions on which surveys rely. Qualitative methodologies facilitate insight into local, 'emic' interpretations and experiences. This is important because, as we have argued, policies and practice need to be based on people's own reproductive health understandings and goals. It is also information which can enable health care professionals to become more attuned to clients' interpretations, needs and expectations (D'Ambruoso et al.; van der Sijpt; Kleinman, 1978).

Third, several papers demonstrate the usefulness of the repeat interviews and longitudinal research that are sometimes employed in ethnographic studies (Brunson; Haws et al.; Jeffery & Jeffery; van der Sijpt; Storeng et al.). This enables researchers to establish rapport, which is vital given the sensitivity of loss in childbearing. It also enhances insights into the variability of experiences of loss and relates people's experiences and their management to contextual factors.

In general, then, combining public health and social science perspectives enables us to go 'beyond body counts' (Storeng et al.) and paint a fuller picture of the issues at stake. For instance, as D'Ambruso et al. argue, structured classification systems of maternal deaths leave out a range of social and distal causes. Social science studies also point to different reasons for under-reporting loss, not as recall problems or instances of emotional suppression, but as related to social meanings and norms, and to women's vulnerability to risks of stigmatisation, witchcraft and spirits (Haws et al.). In conclusion, an inter- or multidisciplinary approach to loss increases the depth, breadth and validity of our insights.

Conclusions and the future for multi-disciplinary research

This collection increases our understanding of the range of experiences, interpretations and management of loss in childbearing at the level of local communities as well as global initiatives. Important insights are derived from critical, contextualised and multi-disciplinary analyses, and the examination of standard methodologies (verbal autopsies, surveys) and categories (e.g. induced and spontaneous abortions, informed choice). The papers highlight how interpretations of loss and its management vary between disciplines, socio-cultural contexts, and between people 'on the ground' and policymakers or NGOs, with implications for the success of policies and interventions. By combining perspectives and examining conceptual and methodological assumptions, we have the added value of bringing an unusually wide range of physical, psychological, social, and economic loss into view. Moreover, it is clear that economic and gender inequalities are paramount to the experience

and consequences of loss in childbearing, whether loss pertains to the mother, the unborn child or reproductive potential. Being a woman, and being poor, increases the risk of experiencing loss, aggravates its consequences and limits one's options to prevent, manage and cope with loss. Reproduction is truly stratified (Rapp, 2001), and understanding it requires contextualisation and attention to social aspects and processes, including socio-economic and political inequalities.

There are, of course, still gaps in our knowledge. The call for papers for the 2008 workshop resulted in few papers on infertility and after the peer-review process, we were able to include only one paper which focuses specifically on infertility. There is scope for more high quality infertility studies. Furthermore, the papers in this special issue pay relatively little attention to men's experiences and perspectives. In general, men are under-represented in reproductive health research, policies and interventions (Dudgeon & Inhorn, 2004). Calls for 'male involvement' are easily made and have been common since the ICPD (UN, 1994; Cohen & Burger, 2000; Dudgeon & Inhorn, 2004). A first step towards getting men involved in sexual and reproductive health is including them in research. Amongst other aspects, more information is required about the circumstances under which women and men themselves want men to be involved in reproduction. Finally, there is a need for more operational and implementation research, given findings such as health practitioners' lack of accountability, maternal care being based on social characteristics rather than need (D'Ambruoso et al.; Jeffery & Jeffery), and policies and practice guidelines not being adhered to (D'Ambruoso et al.; Jeffery & Jeffery; Pitchforth et al.).

A last issue concerns the scope for inter- and multidisciplinary research. We have identified some advantages of bringing social sciences into a domain traditionally dominated by medical and public health sciences in order to obtain a fuller picture of loss through introducing inductive, contextualising methodologies and illuminating theoretical social science concepts. The challenges, however, also need to be acknowledged.

First, striving for analytic depth may limit practical relevance. As we noticed ourselves during the workshop, and whilst producing this editorial, fruitful collaboration between academics from different disciplinary backgrounds may require translation of each others' concepts (Bevan, 2006) alongside active efforts to communicate with each other. Scientists from all disciplinary areas need to develop heightened awareness of the needs of others and must use language and concepts that can make their ideas accessible and engage scholars from other disciplines. Such 'translations' include explaining the relevance of social analyses for policy and practice.

Second, divergent disciplinary cultures and histories have been identified as hurdles to multi-disciplinary research (Bevan, 2006). Different social and medical sciences vary in the extent to which they require explicit pre-determined procedures such as pre-coded questionnaires, or are more responsive to serendipitous events and to the needs and concerns of the people with whom the researcher is working. This can be a challenge for writing up and communicating qualitative social science studies in particular and having them accepted as rigorous and valid.

This may be a matter of changing disciplinary customary practices, but it could also relate to power relationships between disciplines. The political economies of disciplines and of donor-driven research have been identified as a third hurdle to inter- and multidisciplinary work (Bevan, 2006). Participants at the Edinburgh workshop on loss in childbearing identified power differentials between public health and social sciences as a potential barrier to the uptake of social science research. They also noted that policymakers may not have the time to await the results of ethnographic or longitudinal studies, or may not be convinced that they are worth the investment. Thus, the disciplinary preferences, assumptions and concerns of those who fund and implement research are potential hurdles that also need to be addressed. This could be done through persuading others of the value of apparently 'fuzzy' and resource-intensive in-depth social science research. In addition, Pitchforth et al.

(this issue) demonstrate the value of further developing pragmatic, mixed-method and 'rapid' methodologies.

The ESRC Research Group on well-being in developing countries has developed a framework in order to facilitate multi-disciplinary development research (Bevan, 2006). The framework identifies key features according to which disciplinary approaches differ (see table1). One could chart these characteristics in a table with disciplines in the horizontal axis

Table 1. Features of disciplinary approaches (Bevan, 2006), applied to the study of loss in childbearing

1. Research problematic (e.g. what are the issues concerning loss about which we need to gain knowledge)
2. Values, standpoints, and normative theories (e.g. feminist or Marxist approaches)
3. Ontology (e.g. conceptualisations of the nature of loss and the world it occurs in)
4. Epistemology (e.g. what is the nature of the knowledge we can obtain about loss, and what are valid ways of obtaining knowledge)
5. Theories, conceptual frameworks and models (e.g. the 'social body')
6. Methodologies including unit of analysis (household, communities, countries), methods of data-collection and analysis
7. Types of conclusion (e.g. generalization or particularity);
8. Rhetoric (words, symbols and writing styles used);
9. Implications for practice (what is to be done and by whom).

and features in the vertical axis (see Bevan, 2006). In order to be able to conduct fruitful and useful inter- or multidisciplinary research, we need literally to think outside the 'box', and outside the cells in the table. Bevan (2006) and Myerson (1994) have argued that any 'dis-connects' between disciplines should be bridged through open, constructive cross-disciplinary dialogue, mutual appreciation and reflexivity regarding our ontological and epistemological orientations. This special issue, and the workshop it was based on, offers a starting point.

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